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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/446,508	12/27/1999	KEIJO PALVIAINEN	PM265414	2423

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PILLSBURY WINTHROP, LLP
P.O. BOX 10500
MCLEAN, VA 22102

EXAMINER

DAVIS, TEMICA M

ART UNIT PAPER NUMBER

2681

DATE MAILED: 04/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/446,508

Applicant(s)

PALVIAINEN, KEIJO

Examiner

Temica M. Davis

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 February 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed February 10, 2004 have been fully considered but they are not persuasive.

Applicant argues that the combination of Joong and Le Strat does not disclose the claimed invention. Specifically, the applicant states that Le Strat teaches that transmission mode selection should be carried out such that the mobile station and the base station both transmit signals to each other and carry out quality measurements to determine if the signal quality implemented in the transmission mode is suitable, and if the base station determines that the implemented transmission mode is unsuitable based on signal quality measurements, the base station decides to change the transmission mode. Therefore, such teachings teach away from the claimed invention because routing is performed to the forwarding number by selecting one of the alternative lines with different qualities based on a basic service code, and thus, the rejection is based on hindsight.

At the outset, it should be pointed out that the claimed invention does not link how the routing of the call should be performed with the quality of the type of line. The only requirement is that the alternative types of lines have different qualities.

Joong, the primary reference, teaches all but one of the claimed limitations. Specifically, Joong teaches implementing call routing to a forwarding

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number by selecting one of the alternative types of lines based on a basic service code (col. 6, lines 21-43 and col. 8, lines 48-59). Joong, however, fails to teach each type of line having different qualities. Le Strat was combined with Joong for the sole purpose of showing that speech and data lines can have different qualities (col. 4, lines 39-50).

Regarding Seraj, this prior art was used only to show that calls have a single called party number. The combination of Joong and Le Strat met all of the other claimed limitations as explained above.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Based on the requirements of the claim language, Joong, in combination with Le Strat and Seraj meets all of the limitations as claimed. Therefore, the rejection stands as set forth below.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-14, 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Joong et al (Joong), U.S. Patent No. 6,134,433 in view of Le Strat et al (Le Strat), U.S. Patent No. 6,134,220.

Regarding claim 1, Joong discloses a method for implementing call forwarding in a mobile system comprising at least one forwarding exchange for carrying out call forwarding via one of several alternative types of lines (i.e. analog/digital speech and data lines, see col. 8, lines 48-59) on the basis of subscriber data related to the call forwarding and at least one subscriber database for storing the subscriber data related to the call forwarding, the method comprising the steps of receiving at the forwarding exchange a call set-up message addressed to a subscriber in the mobile system [col. 5: lines 36-47], performing a subscriber data request to the subscriber database [col. 5: lines 40-45], transmitting a response message from the subscriber database to the forwarding exchange, the message comprising data indicating the call forwarding, a forwarding number [col. 5: lines 45-56], and a basic service code [col. 6: lines 28-33], and implementing call routing to the forwarding number by selecting one of said alternative lines based on the basic service code [col. 6: lines 21-43, col. 8, lines 48-59].

Joong, however, fails to specifically disclose wherein each type of line has different qualities.

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In a similar field of endeavor, Le Strat discloses a cellular system that handles voice calls and data calls (col. 2, lines 18-26, col. 9, lines 50-53). Le Strat further discloses wherein the type of quality desired for a voice/data call can be selected (col. 4, lines 26-50, col. 9, lines 16-56, col. 10, lines 21-58).

Therefore, at the time of invention, it would have been obvious to a person of ordinary skill in the art to modify Joong with the teachings of Le Strat for the purpose of allowing a user more freedom in choosing the desired quality of a call to possibly lower the amount of resources used in the call (col. 4, lines 41-50).

Regarding claim 22, the combination of Joong and Le Strat discloses the method according to claim 1, wherein selecting of the alternative types of lines include at least one of line quality, line capacity and line cost (Le Strat, col. 4, lines 41-50).

Regarding claim 2, Joong discloses a method for implementing call forwarding in a mobile system comprising at least a first exchange for carrying out call forwarding via one of several alternative types of lines (i.e. analog/digital speech and data lines, see col. 8, lines 48-59) on the basis of subscriber data related to the call forwarding and at least one home location register connected to the first exchange for storing the subscriber data related to the call forwarding, the method comprising receiving at the first exchange a call set-up message addressed to a subscriber in the mobile system, requesting routing information from the home location register to the first exchange, the message comprising data indicating the call forwarding, a forwarding number, and a basic service code indicating the basic service related to the call, and implementing call routing

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to the forwarding number by selecting one of said alternative types of lines based on the basic service code [col. 5: line 36 - col. 6: line 43, col. 8, lines 48-59].

Joong, however, fails to specifically disclose wherein each type of line has different qualities.

Le Strat discloses wherein the type of quality desired for a voice/data call can be selected (col. 4, lines 26-50, col. 9, lines 16-56, col. 10, lines 21-58).

Therefore, at the time of invention, it would have been obvious to a person of ordinary skill in the art to modify Joong with the teachings of Le Strat for the purpose of allowing a user more freedom in choosing the desired quality of a call to possibly lower the amount of resources used in the call (col. 4, lines 41-50).

Regarding claim 3, the combination of Joong and Le Strat discloses the method of claim 2, wherein the basic service code is forwarded from the home location register to the first exchange via an extension added to the response message Send_Routing_Info_RES to the routing information request (Joong, col. 6: lines 44-65).

Regarding claim 4, Joong discloses a method for implementing call forwarding in a mobile system comprising at least one exchange for carrying out call forwarding via one of several alternative types of lines (i.e. analog/digital speech and data lines, see col. 8, lines 48-59) on the basis of subscriber data related to the call forwarding and at least one visitor location register for storing the subscriber data related to the call forwarding, the method comprising receiving at the exchange a call set-up message addressed to a subscriber in the mobile system, providing a subscriber data request to the visitor location register

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connected to the exchange, transmitting a response message from the visitor location register to the exchange, the message comprising data indicating the call forwarding, a forwarding number and a basic service code and implementing call routing to the forwarding number according to the basic service code (col. 5: line 36 - col. 6: line 65).

Joong, however, fails to specifically disclose wherein each type of line has different qualities.

Le Strat discloses wherein the type of quality desired for a voice/data call can be selected (col. 4, lines 26-50, col. 9, lines 16-56, col. 10, lines 21-58).

Therefore, at the time of invention, it would have been obvious to a person of ordinary skill in the art to modify Joong with the teachings of Le Strat for the purpose of allowing a user more freedom in choosing the desired quality of a call to possibly lower the amount of resources used in the call (col. 4, lines 41-50).

Regarding claim 5, Joong discloses a home location register connected to a first exchange in a mobile system, wherein the home location register is arranged to transmit a basic service code to the first exchange in connection with a response message to a routing information request, the basic service code indicating the necessary properties of the line which should be selected from several types of lines in routing the call (col. 6: lines 10-43, col. 8, lines 48-59).

Joong, however, fails to specifically disclose wherein each type of line has different qualities.

Le Strat discloses wherein the type of quality desired for a voice/data call can be selected (col. 4, lines 26-50, col. 9, lines 16-56, col. 10, lines 21-58).

Therefore, at the time of invention, it would have been obvious to a person of ordinary skill in the art to modify Joong with the teachings of Le Strat for the purpose of allowing a user more freedom in choosing the desired quality of a call to possibly lower the amount of resources used in the call (col. 4, lines 41-50).

Regarding claim 21, the combination of Joong and Le Strat discloses an HLR according to claim 5, wherein the necessary properties include at least one of line quality, line capacity and line cost (Le Strat, col. 4, lines 41-50).

Regarding claim 6, the combination of Joong and Le Strat discloses wherein the home location register is arranged to forward the basic service code to the first exchange by means of an extension added to the response message Send_Routing_Info_RES to the routing information request (Joong, col. 6: lines 44-65).

Regarding claim 7, Joong discloses a first exchange in a mobile system, comprising means for transferring a call to a forwarding number via one of several alternative types of lines (i.e. analog/digital speech and data lines, see col. 8, lines 48-59), wherein the exchange is arranged to derive a basic service code from the call set-up message or from a response message transmitted by the home location register to the first exchange in response to a subscriber data request, and the exchange is arranged to route the call to the forwarding number by selecting one of said alternative types of lines based on the basic service code (col. 5: line 36 - col. 6: line 65, col. 8, lines 48-59).

Joong, however, fails to specifically disclose wherein each type of line has different qualities.

Le Strat discloses wherein the type of quality desired for a voice/data call can be selected (col. 4, lines 26-50, col. 9, lines 16-56, col. 10, lines 21-58).

Therefore, at the time of invention, it would have been obvious to a person of ordinary skill in the art to modify Joong with the teachings of Le Strat for the purpose of allowing a user more freedom in choosing the desired quality of a call to possibly lower the amount of resources used in the call (col. 4, lines 41-50).

Regarding claim 8, the combination of Joong and Le Strat discloses the exchange of claim 7, wherein the exchange is arranged to receive the basic service code in an extension added to the response message Send_Routing_Info_RES to the routing information request (Joong, col. 6: lines 44-65).

Regarding claim 9, the combination of Joong and Le Strat discloses the exchange according to claim 7, wherein the forwarding number is the number of a Voice Mail Service center having several lines, and that said exchange is arranged to transfer the call to the Voice Mail Service center via a line selected for the transfer according to the basic service code (Joong, col. 4: lines 30-44).

Regarding claim 10, the combination of Joong and Le Strat discloses the exchange according to claim 7, wherein the exchange is arranged to subject the forwarding number to a conversion selected according to the basic service code (Joong, col. 6: lines 21-43).

Regarding claim 11, Joong discloses an exchange in a mobile system, comprising means for transferring a call to a forwarding number via one of several alternative types of lines (i.e. analog/digital speech and data lines, see

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col. 8, lines 48-59), wherein the exchange is arranged to derive a basic service code from basic service data that indicates the basic service of the call and that is transmitted in connection with the call set-up message or a response message transmitted from the visitor location register to the exchange in response to a subscriber data request, and the exchange is arranged to perform routing to the forwarding number by selecting one of said alternative types of lines based on the basic service code (col. 5: line 36 - col. 6: line 65, col. 8, lines 48-59).

Joong, however, fails to specifically disclose wherein each type of line has different qualities.

Le Strat discloses wherein the type of quality desired for a voice/data call can be selected (col. 4, lines 26-50, col. 9, lines 16-56, col. 10, lines 21-58).

Therefore, at the time of invention, it would have been obvious to a person of ordinary skill in the art to modify Joong with the teachings of Le Strat for the purpose of allowing a user more freedom in choosing the desired quality of a call to possibly lower the amount of resources used in the call (col. 4, lines 41-50).

Regarding claim 12, the combination of Joong and Le Strat discloses the exchange according to claim 11, wherein the exchange is arranged to derive the basic service code at least on the basis of the bearer capability information element contained in the basic service data (Joong, col. 6: line 21 -28).

Regarding claim 13, the combination of Joong and Le Strat discloses the exchange according to claim 11, wherein the forwarding number is the number of a Voice Mail Service center having several lines, and that the exchange is

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arranged to transfer the call to the Voice Mail Service center via a line selected for the transfer according to the basic service code (Joong, col. 4: lines 30-44).

Regarding claim 14, the combination of Joong and Le Strat discloses exchange according to claim 11, wherein the exchange is arranged to subject the forwarding number to a conversion selected according to the basis service code (Joong, col. 6: lines 21-43).

4. Claims 15-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Joong, Le Strat and Seraj, U.S. Patent No. 5,388,095.

Regarding claims 15-20, the combination of Joong and Le Strat discloses the limitations of claims 1, 2, 4, 5, 7 and 11 as described above and further discloses wherein the basic service/code includes different call types for the subscriber (Joong, i.e. analog/digital speech and data lines, see col. 8, lines 48-59).

The combination, however, fails to specifically disclose wherein the different types of calls have a single called party number.

In a similar field of endeavor, Seraj discloses representation of subscribers in a multiple interface environment. Seraj further discloses wherein different interfaces belonging to one subscriber have a single called party number (col. 2, lines 20-51).

Therefore, at the time of invention, it would have been obvious to a person of ordinary skill in the art to modify the combination of Joong and Le Strat with the teachings of Seraj since such a feature (single called party number) would

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limit the amount of telephone numbers one would have to remember when needing to contact someone having multiple communication devices.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Temica M. Davis whose telephone number is (703) 306-5837. The examiner can normally be reached Monday-Friday (alternate Fridays) from 9:00am-3:00pm.

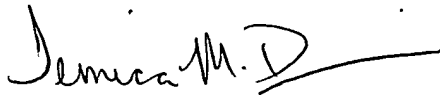
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Erika Gary can be reached on (703) 308-0123. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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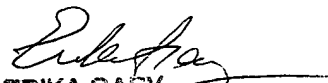
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Temica M. Davis
Examiner
Art Unit 2681

April 16, 2004



TEMICA M. DAVIS
PATENT EXAMINER


ERIKA GARY
PATENT EXAMINER